

## **Information Technology Specialist**

### **GS-2210-7**

#### **Introduction:**

The incumbent is a developmental level Information Technology Specialist. Duties are associated with one or more of the IT speciality areas. Work assignments are specifically designed to provide the incumbent with experience and training in the direct application of methods and procedures to a variety of well defined tasks, and to assist in providing the organization with IT services.

*The supervisor must identify the speciality area(s) in which the employee performs work on a regular and recurring basis by checking the appropriate block(s) and indicating the percentage of time spent for each speciality area checked. Parenthetical titles will be assigned in accordance with instructions in the Job Family Position Classification Standard for Administrative Work in the Information Technology Group, GS-2200.*

#### **Major Duties**

☐ **Policy and Planning** ( \_\_\_\_ %)

Assists in modifying established IT plans and policies in response to new legislation, regulations, directives, or other guidance affecting the IT program. Assists with audits of IT programs and projects.

Provides basic policy guidance to customers and users.

Assists in the review of contract proposals to acquire hardware, software, or IT services to determine whether they address business needs and comply with current policies.

Ensures that information security/information assurance policies, principles, and practices are considered and complied with in the delivery of IT services.

☐ **Security** ( \_\_\_\_ %)

Assists in the development of policies and procedures to ensure information systems reliability and accessibility and to prevent and defend against unauthorized access to systems, networks, and data. Assists with risk and vulnerability assessments of planned and installed information systems to identify vulnerabilities, risks, and protection needs. Assists with systems security evaluations, audits and reviews. Assists with the development of systems security contingency plans and disaster recovery procedures. As directed, gathers and preserves evidence used in the prosecution of computer crimes. Ensures that information security/information assurance policies, principles, and practices are considered and complied with in the delivery of IT services.

Prepares and presents basic computer security training classes such as security procedures for new employees.

Processes requests for systems access, issues and resets passwords, maintains records of access.

☐ **Systems Analysis** ( \_\_\_\_ %)

Assists in selecting preliminary design specifications for new or enhanced software systems.

Participates in meetings to collect information about user requirements.

Participates in drafting system specifications.

Ensures that information security/information assurance policies, principles, and practices are considered and complied with in the delivery of IT services.

☐ **Applications Software** ( \_\_\_\_ %)

Assists more senior IT Specialists with writing applications, using a variety of applications programming languages and programming tools, such as computer assisted software engineering (CASE) tools. Assists with conducting unit and systems testing, performs simple installations of programs at customer sites, provides support on routine execution problems, and assists with modifying applications as directed.

Assists more senior IT Specialists in customizing commercial software applications to meet customer business requirements. Participates in the decision process for purchase of new software.

Prepares drafts program documentation and documentation updates.

Ensures that information security/information assurance policies, principles, and practices are considered and complied with in the delivery of IT services.

☐ **Operating systems** ( \_\_\_\_ %)

Assists with tuning operating systems performance parameters including installing patches and downloading new drivers to optimize performance.

Installs and validates routine systems software patches and fixes provided by vendors. Runs prescribed tests to ensure functionality and interoperability within the systems environment.

Ensures that information security/information assurance policies, principles, and practices are considered and complied with in the delivery of IT services.

☐ **Network Services** ( \_\_\_\_ %)

Assists with monitoring of the ongoing operation of local and wide area networks to ensure that systems are functioning properly and meet optimal performance standards.

Reviews personnel listings and security databases to identify unused network accounts.

Troubleshoots routine network problems.

Assists with installing, configuring, and maintaining network hubs, switches, routers, and servers that support a wide-area network. Assists with optimizing and fine tuning performance.

Troubleshoots common problems.

Performs tasks in support of network administration including assisting in the management of user accounts, monitoring service levels, and basic troubleshooting and restoration.

Ensures that information security/information assurance policies, principles, and practices are considered and complied with in the delivery of IT services.

☐ **Data Management** ( \_\_\_\_ %)

Assists in the maintenance of databases including adding new elements to databases as directed.

Maintains, and updates databases. Establishes new databases of limited complexity. Diagnoses and corrects routine problems.

Assists with the migration of production databases according to established migration plans and strategies. As directed, performs a variety of functions including running migration utilities, writing

scripts, and preparing documentation. Updates backup, restoration, and recovery procedures and user guides as necessary.

Performs routine database administration functions such as developing queries and reports based on customer requirements, modifying or developing database views, and performing backup and recovery operations.

Advises users on basic data standards, policies and procedures.

Ensures that information security/information assurance policies, principles, and practices are considered and complied with in the delivery of IT services.

☐ **Internet** ( \_\_\_\_ %)

Assist with monitoring intranet services that provide intranet customers with access to applications and data. Assists with configuring, monitoring, and fine-tuning dedicated servers; runs utility programs to obtain site statistics; and troubleshoots routine problems.

Reviews, tests, and implements new Web pages on the organization's Web site.

Tests Web pages to identify broken links.

Ensures that information security/information assurance policies, principles, and practices are considered and complied with in the delivery of IT services.

☐ **Systems Administration** ( \_\_\_\_ %)

Coordinates scheduling with users for the installation of new or modified hardware and operating systems and applications software.

Assists with deinstalling software or to replace hardware components.

Monitors and maintains records of equipment preventive maintenance schedules to minimize disruptions to systems operations.

Assists more senior IT specialists to maintain, optimize, and troubleshoot server hardware and software, monitors server loads.

Ensures that information security/information assurance policies, principles, and practices are considered and complied with in the delivery of IT services.

☐ **Customer Support** ( \_\_\_\_ %)

Diagnoses and resolves routine problems with applications, operating systems, and equipment. Maintains problem tracking and resolution databases. Assists with Installing, configuring, troubleshooting and maintenance of common customer hardware and software.

Serves as initial contact for customer problems. Resolves simple problems. Resolves more difficult problems with the assistance of more senior IT Specialists.

Ensures that information security/information assurance policies, principles, and practices are considered and complied with in the delivery of IT services.

## **Factors**

### **1. Knowledge Required by the Position**

**Factor Level 1-6 950 points**

#### **Knowledge Common to all specialities.**

Basic oral and written communication skills sufficient to prepare and present reports, to obtain information, and to provide information associated with speciality areas.

General knowledge of network principles and concepts; network equipment and tools; systems administration methods and procedures; customer support principles; IT security principles; troubleshooting methods; and communication methods and techniques sufficient to: assist in implementing and maintaining network and systems services; monitor network and systems performance and troubleshoot minor problems; document and initiate response to security problems; and provide guidance and training to customers in accessing network and systems services.

Knowledge of information security policies, vulnerabilities of computer and data communications systems, and the basic tools and practices for protecting information systems.

In addition to knowledges above, the position requires the knowledge(s) below corresponding to the specialization(s) checked in major duties.

#### **Policy and Planning**

Knowledge of IT concepts; program management principles; communication techniques; and analytical reasoning.

#### **Security**

Knowledge of IT security principles and methods, commercial systems security products and technical documentation methods.

Knowledge of performance management methods.

Knowledge of risk factors to IT security, such as computer viruses, hackers, and denials of service.

#### **Systems Analysis**

Knowledge of systems analysis methods, tools, and techniques.

Knowledge of basic IT architecture.

Knowledge of technical documentation methods.

#### **Applications Software**

Knowledge of applications software principles and methods; programming languages; systems development processes; and technical documentation procedures sufficient to participate on a team designing, developing, testing, and implementing software for less complex programs or to maintain existing applications software.

#### **Operating Systems**

Knowledge of software installation and configuration procedures; life cycle management principles; optimization methods; and analytical methods sufficient to assist in readying the operating environment to support testing activities.

Knowledge of software installation and configuration procedures; operational environments; life

cycle management concepts; and analytical methods sufficient to assist in the installation of operating systems update packages; run tests and correct problems; and recognize and refer serious problems to more experienced specialists or vendors.

Knowledge of IT principles and methods; operating systems environments; and analytical methods sufficient to analyze reports; identify deficiencies in operating systems parameters; and recommend remediation to a more experienced specialist.

### **Network Services**

Knowledge of network standards; network management tools; and network equipment capabilities; network architecture principles; and local area network and wide area network (LAN and WAN) principles sufficient to troubleshoot and maintain the stability of communications lines and equipment, and to install, configure, and troubleshoot LAN and WAN components such as routers, hubs, switches, and servers.

Knowledge of network principles and concepts and network equipment and tools sufficient to assist in maintaining network services, such as Dynamic Host Configuration Protocol (DHCP), Domain Name Server (DNS), and directory services; install, test, and configure network workstations and peripherals; and instruct customers in logging on and accessing network services.

Knowledge of configuration management and life cycle management concepts sufficient to identify the need to upgrade or enhance network component capabilities in response to network problems and deficiencies.

### **Data Management**

Knowledge of data management concepts and methods; IT security principles; and technical documentation procedures sufficient to update user manuals; authentication procedures; installation procedures; systems administrator functions; and related IT security features.

Knowledge of data management concepts and methods; IT security principles; and operating environments sufficient to execute a variety of database utility functions.

Knowledge of data management methods; communication methods; and analytical methods sufficient to assist customers in navigating and accessing databases using various interfaces.

Knowledge of data management principles; data storage technology; operating systems; commonly used platforms; and backup and recovery procedures sufficient to implement operating systems procedures for running timed or scheduled events such as file backups.

### **Internet**

Knowledge of Web page design principles and methods; graphics markup languages; multimedia principles, methods, and tools; programming languages; file formats; and browser technical requirements sufficient to ensure that new Web pages are consistent with relevant design and formatting standards and to advise content developers on Web page requirements.

Knowledge of Internet operations; graphics markup languages; programming languages; Internet server maintenance techniques; software validation tools; performance monitoring methods; and analytical methods sufficient to diagnose and troubleshoot Web site operational problems such as broken links or file directory, server, or applications problems, make corrections, and restore functionality.

Knowledge of Internet principles; programming languages; optimization or tuning tools; Internet clients; browser technology; quality assurance principles; and analytical methods sufficient to fine

tune Web pages and other Internet services to ensure compatibility with different browsers; and test new browser versions for compatibility with existing services.

### **Systems Administration**

Knowledge of systems administration methods and procedures; performance monitoring methods; and analytical methods sufficient to install server upgrades; schedule downtime to minimize user impact; monitor server performance using performance monitoring tools; and recognize and refer problems to more experienced specialists.

Knowledge of systems administration methods and procedures; and performance monitoring methods sufficient to schedule, monitor, and verify the integrity of system backups and restore files as needed.

Knowledge of systems administration methods; IT security principles; and analytical reasoning sufficient to correct security vulnerabilities in assigned systems in response to problems identified in vulnerability reports.

Knowledge of systems administration methods and procedures and analytical methods sufficient to serve as a member of a team responsible for planning and managing large-scale server deployment.

### **Customer Support**

Knowledge of customer support principles; installed systems bases; IT security principles; methods and procedures for documenting resolutions; problem resolution databases; troubleshooting and data analysis methods; and communication methods and techniques sufficient to receive, respond to, and ensure complete resolution of any help center call; document actions taken; give needed guidance or training to customers to prevent recurrences; and assist more experienced specialists in resolving very complex problems.

Knowledge of customer support concepts and methods; the organization's IT infrastructure; IT security principles; and new IT products and services sufficient to install, configure, and test software on customer workstations.

## **2. Supervisory Controls      Factor Level 2-2   125 points**

The supervisor instructs the employee on the purpose of the assignment and its scope, limitations, expected deadlines, and priorities. The supervisor also advises the employee on peculiarities of new assignments. The employee works independently, but within the framework established by the supervisor and in conformance with established practices and prescribed procedures. The employee refers problems not covered by the supervisor's instructions or guides to the supervisor for help or a decision. The supervisor reviews completed work closely to verify accuracy and conformance to required procedures and special instructions; reviews findings and conclusions to ensure they are supported by facts; and typically reviews in detail the more difficult work of a type the employee has not previously done.

## **3. Guidelines                      Factor Level 3-2   125 points**

The employee uses a number of guidelines that are directly applicable to the assignment. Guidelines prescribe established procedures and techniques and provide clear precedents. The employee uses judgment in selecting and applying the most appropriate guidelines; determines the appropriateness and applicability of any minor deviations within existing guidelines; and refers to the supervisor situations to which the existing guidelines cannot be applied or that require significant deviations.

**4. Complexity** **Factor Level 4-2 75 points**

The work consists of easily distinguishable tasks involving related steps, processes, methods, and procedures. The employee decides what needs to be done by choosing from various alternatives, recognizing differences among a few easily distinguishable situations. The employee uses judgment regarding the most appropriate approach that is in accordance with established procedures and practices

**5. Scope and Effect** **Factor Level 5-2 75 points**

The primary purpose of the position is to provide the IT Specialist with the training and experience to perform work at a more responsible level. Assignments will include carrying out tasks requiring application of specific standards, methods, and procedures. The assignments will orient the incumbent in IT methods and practices and affects the overall accuracy, reliability, acceptability, and timeliness of the final work products or services developed or delivered by higher-grade IT Specialists.

**6. Personal Contacts** **Factor Level 6-2**

Contacts are primarily within the immediate office and with IT customers.

**7. Purpose of Contacts** **Factor Level 7-A - 6-2 & 7-A 45 points**

The purpose is to obtain and provide information.

**8. Physical Demands** **Factor Level 8-1 5 points**

The work is sedentary, but may involve extended periods working at a keyboard and monitor. Work may also involve carrying or moving computer components and supplies.

**9. Work Environment** **Factor Level 9-1 5 points**

The work area is adequately lighted, heated, and ventilated.

Total Points 1405 Point Range 1355 to 1600 = GS-7